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# Embedding Reflective Thinking on Approaches to Learning – Moving from Pilot Study to Developing Institutional Good Practice

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## Abstract

### *Aim*

Asking undergraduates to reflect on their approaches to learning involves the individuals in effort and activity they may well consider to be an unwanted addition to their normal studies: unless the activity has clear links in their minds with their chosen subject. The same reaction is sometimes found in teaching academics, as supporting a reflective strand requires additional effort which they may be happy to give as long as it relates to their research, or is a one off pilot. There are therefore issues that very quickly arise when attempting, as this study does, to embed metacognitive thinking about approaches to learning and style into the everyday good practice of teaching staff in universities and in the routine thinking of students.

### *Methodology*

This paper describes the progress of a study facilitating the embedding of one framework for developing an individual's approaches to learning into the everyday good practice of university teaching staff and the everyday learning experience of undergraduates. It is an interim report that sets out the five strands of this activity: introduction to the model for staff; first steps at putting into practice; collection of examples of activity; building a community of practice; assessing the effectiveness of interventions. It also describes some of the issues and challenges that arise when moving from pilot study to developing good practice within a large organisation. The basis of the initial stages is a consultative and collaborative approach to develop effective materials for informing colleagues and developing their understanding of the model whilst laying the foundations for a community of practice and empowering individuals to develop activities for embedding these ideas into their teaching and to share these along with commentary on the success of these interventions – not just within the group but also for their contemporaries to access.

### *Finding*

It has previously been demonstrated that the Effective Lifelong Learning Inventory, ELLI, can be an effective tool for teachers and learners, providing a framework to think and talk with students about learning and about how to grow as learners within both their formal education and informal learning. However, this is a reasonably complex model with seven dimensions of learning, and it has been developed primarily for the school context. Whilst the model has been shown to be of value within universities, the higher education context offers several challenges to the approach and these are explored. The issues relating to colleagues being persuaded to embed these ideas into their everyday practice will be discussed along with the measures required for institutional support, including the demonstration of positive outcomes to interventions.

### *Relevance*

This paper is relevant to anyone considering ways in which their understandings and experience of metacognitive thinking about approaches to learning and style may benefit the student body, the teaching of their colleagues and their institution

**Keywords:** lifelong-learning, open distance learning, personal development, higher education, ELLI

## 1. Introduction

It is, of course, vitally important to research the validity and effectiveness of theories and the tools that we and others develop. As we find models that offer benefits to individuals in their learning then, as practitioners, we find ourselves compelled to find ways to embed these ideas into our normal activities. Through the academic communities we belong to ideas are shared and tested further. Understandings grow and individual practices develop and become increasingly refined. We may influence the practice of others as they measure and make judgements on our work. Ideally, those of us who work in the same institution

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should also be sharing in the same way as we belong to the same institutional academic community. However, this is not necessarily the case and it should not be surprising when the internal community within our own institution works less effectively than those of the international academic communities of which ELSIN is one. However, this may present us with a problem. Do we rest content that we have continued to develop our practice as well as we can, or do we try to affect those of others perhaps even those of our institution?

Following two studies, the first of which was presented to ELSIN in 2009 (Edwards & Hush, 2009) and the second in 2010 (Edwards, 2010a) and the shared findings from others on the use of the Effective Lifelong Learning Inventory (ELLI), I set out to share these ideas further. In particular I wanted to find a way to share these ideas with others within my institution and to increase the number of students to be given the opportunity to engage with the framework of ideas at the heart of the tool. This paper is a report on the way this has been approached and the results to date.

## **2. Background**

The ELLI tool was developed at Bristol and brought together a range of ideas associated with approaches to learning, or individual learning dispositions stemming from work in the early part of the last decade (Carr & Claxton, 2002). Some see these as relating to learning styles others feel they are something different to styles. Learning power has been described by one of the tool's originators as:

*'...a form of consciousness characterized by particular dispositions, values and attitudes, with a lateral and a temporal connectivity' (Deakin Crick, 2007) p.138.*

However, the tool is in practice at times used as an alternative to speaking about other models of learning styles and therefore has relevance to the area of styles research. The first project we undertook included a strand intended to explore whether ELLI was a suitable replacement for the Honey and Mumford learning styles questionnaire and model that had been selected several years earlier by the team developing a technology module (Edwards & Hush, 2009). ELLI has been extensively trialled with age groups ranging from primary school children (Deakin Crick et al., 2004) to adult learners at university (Small & Deakin Crick, 2008). The Honey and Mumford questionnaire is directed at general traits in behaviour and Effective Lifelong Learning Inventory is one of the tools that begins with behaviour but invites reflection on an individual's approaches to learning. Both questionnaires are intended to be the starting point in a process of discussion and change and not be used for assessment or selection. Following this study the module team retained the Honey and Mumford approach because it was relatively straightforward and quick to use in comparison with ELLI and because a change would have therefore required very significant reworking of the module.

A recent publication clearly sets out the intentions to initiate a focus on ways to identify a good style theory and developing approaches to encourage greater examination, comparison and development of theories (Rayner & Cools, 2011). This should gradually bring greater coherence to the field and help us establish better ways of comparing models and theories.

Sir Ken Robinson argues persuasively in his lecture to the Royal Society for the encouragement of Arts, Manufactures and Commerce (RSA) on the need for a paradigm shift in the way we approach education (Robinson, 2008). He argues humanity has entered a period of such rapid and fundamental change and is impacting on its home planet in significant ways that we cannot afford to not re-imagine our education systems. It is clear that he and others have made a case for this for over a decade and whilst the rhetoric of governments may suggest this is important the reality of change in education is far short of the transformation they have called for. I do not argue the work I and others do on theories, ideas and practices relating to style will directly lead to such a change, or that there is universal agreement this change is necessary. I consider we are contributing to an improved understanding of individuals as learners, including themselves, and this will enable an increasing number to benefit from an improved education however radical the system is allowed to become.

## **3. Method**

The model of use for the ELLI inventory requires a trained mentor to facilitate an individual learner's reflection on the results of their answers to the online inventory. Therefore, if the integrity of the approach is

to be maintained whilst offering the framework to an increasing number of individuals, an increase in the number of available mentors must also be made. The obvious group to approach within the institution are the lecturers. The people who have the greatest interest and engagement with a student's learning process. A possible second group to consider is the student body itself. There can be advantages in this –buddying is becoming more widely considered as a way, when carefully managed, to structure improved support for students whilst keeping costs in check. As part of the buddying approach it would therefore also make sense to include some structured reflection on approaches to learning. For this study I took the approach to encourage a number of lecturers to engage with the model and to use this experience and their feedback to improve the approach. I produced a document intended to introduce members of the University community to the model. This was a 22 page document with background, a description of the model and the chart that it produces (Edwards, 2010b). It also included sections illustrating how the seven dimensions of learning power might relate to different people and on typical interventions that might be suitable within a university context and the learner's environment. The document takes the ideas described by Tim Small (Small, 2006) with some adaption for the higher education and adult context and is available at <http://www.open.ac.uk/personalpages/c.h.edwards/conferences/elli-inOU-intro-draft-may2010-first-version.pdf>. The approach consisted of two options. Firstly, there was the option to read and comment on this document using the lecturer's own knowledge and experience. Secondly, there was the option to use the ideas within the document to develop an activity within a tutorial session, either face-to-face or virtual and to describe and report on this. There were small amounts of funding available as recognition this was additional to their workload.

Responses from option 1 will be used to improve the orientation document by making it clearer and better organised and directed to those who will use it. Those colleagues who have opted for the second option, to develop an activity, will report what they have done and how it went. With their agreement we can build a repository of activities to use with different groups in different subjects at different levels.

The intention is also that we begin to build a community of colleagues who are developing and working with the instrument. Together, these activities constitute a phase 1. Practice is beginning to be shared and developed amongst a group of staff. The next phase is to develop, if necessary, these activities to allow their success/effectiveness to be measured. We have previously reported (Edwards & Hush, 2009) that using ELLI with undergraduates in higher education (HE) is seen by them as offering something of value. Also, that the staff involved with its delivery give very positive feedback of their experience. What we need to demonstrate for the wider institution to take a stronger interest is a measurable benefit that will justify the use of resources – largely staff time – in administering and supporting the tool.

The university is a distance learning organisation that uses a supported open learning method. Face-to-face tutorials take place on most modules and usually last two hours. Online synchronous and asynchronous tutorials also take place in an increasing number of modules using forums and conferencing software.

### 3. Results

Thirty one lecturers committed to provide extended comments on the introduction document and reports were received from all. Comments ranged from the typographical through those to do with the structure and layout and on to those questioning the ideas behind the document. All were engaged by the ideas in the paper and it is clear from responses that individuals valued the space to consider their own approaches to learning and how the seven dimensions related to themselves. Of course, not everyone felt the ELLI approach was the best. No specific preferred alternatives were named although one commented they prefer 'more practical' ways – referring to their psychology background. Some had not thought about their own learning and one noted this whilst commenting they frequently encouraged their dyslexic students to do so.

Some concern was expressed over the 'complex' and 'cumbersome' nature of the model and it was noted that for those students already struggling with the volume, variety and unfamiliarity of university study this might be too much to expect them to deal with. Similar remarks were made for those on introductory routes into HE. These are part of our institution's widening participation programme, and comprise relatively short but moderately paced modules with strong tutor support. This complexity would also mean that not all members of any group would choose to commit to the process – unless it was integrated into the module. An alternative approach was offered where the lecturer would be aware of ELLI and use their own understanding to shape their work with their students. They would effectively be responsible for the mediation of the model and its communication to individuals and the group. Within this same group of

comments were those who felt there is already sufficient focus on the student's own learning built in to their module. Others commented that the paper was dense as a reflection of this complexity. On the other hand, one person who was grappling with the dimensions and what they mean and how they should be viewed felt the paper was too brief.

The mode of support is also identified as an issue. Face-to-face support is assumed within the approach to ELLI. However, there is an increasing pressure to move HE study, at least for some student groups and for some institutions, including my own, to increased online meeting and reduced face-to-face delivery. This provides many challenges to both those teaching and learning. It also requires the model of support for ELLI to be developed. Linked with this a concern was expressed that there was a risk students might not be supported in their reflection by someone with appropriate experience. The suggestion was not that harm would be done, but that the effectiveness of engaging with the tool would be reduced. Another highlighted the risk of students using the model (not the inventory as this is only accessible by arrangement) themselves without support and gaining little or nothing from it. The benefit of this support was expressed well by one lecturer who had made an honest attempt at placing himself on the dimensions of learning and said that the exercise 'stimulated a lot of internal debate' that lead to the 'desire to want to express these thoughts to another individual'.

One respondent suggested that the tool be used if and when students felt they had reached a plateau in their learning in the years following their first year. Others suggested that it was ideal for students as they begin their study.

Subject specific relevance was indicated in relation to the tool sparking a discussion amongst students about how skills and other aspects of sport are learned, and this open discussion would be valuable ahead of personal reflection. With regards to the creativity dimension in particular one commented that different disciplines might like to add their own examples to support this dimension. Another commented that the approach gives a different articulation of exactly what they do to encourage collective composition and improvisation with those attending their music workshops.

Of the fifteen people who committed to develop an activity I have so far received eight outline activities which vary in content and format:

1. Use the seven dimensions of learning power to augment a 'free write' exercise which is a stream of consciousness activity that some manage but other students struggle with because they are not familiar with working in this way, or find it difficult to do.
2. Provide students with an outline learning profile as they begin a first year undergraduate environment module. This would take the form of each student receiving a pack of materials based on appendices A, C and D from the draft introduction paper. After an introduction from the tutor the students would consider their learning in the first sections of the module and use this reflection to show where they think they sit on the printed blank profile chart. The tutor would collate these and use the draft document to provide suitable, selected feedback. The intention is to discuss the profiles as a group in a subsequent tutorial and to reflect again on their learning at a later point in the module. The group electronic forum would be a place to allow the discussion to continue.
3. For a first year undergraduate module called 'Learning through enquiry in primary schools' the last half hour of the first tutorial – two and a half hours long – will be used to introduce the ELLI dimensions of learning using copies of the appendices as above. The students will be encouraged and supported in using this through their study of the module and their tutor intends to use the four formal assessments as benchmarks.
4. Group 1, a first year undergraduate group studying the Arts. The tutor would send students the rough and ready tool to have an attempt at completing before the tutorial prior to their second formal assessment. This is timely, as this second assessment includes questions that ask students to rewrite part of their first assessment taking into full account of the tutor's feedback. Students would pair off and discuss each other's profiles in so far as they are willing. The tutor would bring the students together for a group discussion, and would have the profiles of several fictitious students available for the group to discuss. The tutor has some themes in mind: What they learn from their profile; How they can build on their strengths; How they can tackle the areas where they are not so strong; How the different areas of the profile might link with one another. There would be opportunities at later tutorials to have another attempt at profile charts and discussion.

Group 2, a second year undergraduate Arts group. Here the tutor would send the rough and ready profile for the students to attempt to complete and bring to the first tutorial. Towards the end of this first tutorial they would discuss their profiles and continue in the same way as the group above.

Group 3, a second year undergraduate Arts group studying a different module. This module is unusual as there are no face-to-face tutorials. The tutor would post the rough and ready profile on the module forum and ask students to have a go at completing it during the first week. The students would then be asked if they had any questions or comments and given a couple of days to respond before the tutor posts two or three fictitious profiles and asks for comments before pulling things together using the same list of themes as before. There would be a later request to have a second attempt at the chart with opportunities to discuss.

Group 4, a first year undergraduate group following an introductory route. This module uses regular one-to-one telephone tutorials. The tutor would introduce the idea of the seven dimensions of learning at the end of the first and offer to send a blank chart and details for the student to attempt to complete and give a couple of weeks for them to do this. The tutor would dedicate an additional telephone tutorial to a conversation about the student's experience of making their profile and discussing the things that it raised for them. They would return to the profile and evaluate where they are now at the end of the module.

5. The tutor would introduce ELLI in the second half of the third tutorial with their group – a first year undergraduate arts group. They would illustrate each of the dimensions with aspects from the module, or invite students to think how they can demonstrate a dimension through the way in which they study the module. The group would then break into twos and threes to discuss these ideas.
6. The tutor would introduce ELLI to the group studying an introductory module that has been working on study skills. The students would be able to discuss the ideas in groups. A second session would be a one-to-one session held some time later where there would be the opportunity to have a more personalised focus to the conversation.
7. The group is a first year undergraduate group and the tutor proposes beginning a discussion about what learning is and the idea of learning power. They would then consider the seven dimensions move to a point where the students would have a go at rating themselves and therefore producing their own profile. They would then be able to discuss these and then consider developing student owned strategies for change.
8. The tutor plans to provide background information to their group of students on an introductory module and invites expressions of interest. About half the group would be expected to have an interest in learning more about Effective Lifelong Learning Inventory. Those that do would be sent a moderated form of the dimensions guidance that they could work on during a tutorial with support from the tutor. They would revisit this towards the end of the module.

Whilst I am waiting for the final reports it seems that the tutor linked to the activities set out in (4.) above has had no response to those studying only accessing things through the online environment. However, the response at a face-to-face tutorial was 'better than I expected' with the students finding it of benefit and continuing to refer to it on occasion following.

### **3. Discussion**

Why do we want to encourage students to reflect on their learning? It leads directly from our experience as teachers and researchers. It is also strongly encouraged as the third response to the perceived problems in the field of style research described in Rosenfeld and Rosenfeld, (2011). An individual's responses to their reflection help themselves, each other and they improve the teacher's understandings of the ways in which their students learn. However, this is not usually enough for an institution to choose to encourage its staff to adopt a change in approach with its corresponding investment of effort and therefore valuable and increasingly scarce resource into it. The current financial pressures on very many institutions are great enough (at least in the UK) to mean that they are looking to significantly reduce staff numbers, making resources for a development like this less available, but some would argue this makes the need greater. Rosenfeld and Rosenfeld speak of the importance and value of encouraging and using the second-person perspective that focuses on a learner's proactive reflection on their own learning into work on style. In their

chapter they recognise that some already do this and in addition to their list I would add another example, from my own institution, where a model of learning style developed from the European Language Portfolio is used in order to aid self-reflection and the development of the autonomous learner (Perez Cavana, 2010). A further example is the work using ELLI including the Dispositions to Stay project in the UK (Thompson, 2010) and is expected to be further reported at ELSIN 2011. Ultimately therefore, some hard figures on improved performance, retention and satisfaction would be sought before any decision at an institutional level is likely. This does not contradict Rosenfeld and Rosenfeld's call for a new paradigm in order to improve the overall health and visibility of research into style but suggests something that might be necessary for a larger number of individual learners to benefit from such research.

I am also interested in people's response to the fact that there are seven (two pole) dimensions of learning power. Undoubtedly this is a higher number than many people are used to dealing with from their general experience. Initially I tended to be apologetic over this comparatively large number and do appreciate that it leads to the requirement of greater initial effort and more complex graphics. Within the apology I would explain that because the model has been developed empirically this is what factor analysis revealed as the dimensions. Having however worked with this in HE for some time now it seems that for university students, particularly mature ones, and their teachers one dimension is almost invariably high – that of change orientation, sometimes referred to as changing and learning. It is also one that people within this group easily relate to. Most of the effort of reflection therefore is naturally focussed on the other six dimensions which makes things a little more straightforward. This also raises the possibility that for most people the changing and learning dimension might be used as an indicator to show their level of self-confidence. Someone with strongly developed dimensions will have a near circular profile chart but for some this circle can be smaller in radius than for others, and this can be to do with self-confidence. Sometimes an individual will repeat the online inventory at a subsequent date without having made any deliberate interventions and find their profile chart has remained the same shape but is fuller, larger radius. An improvement in their self confidence or in their familiarity with the model may be two of the possible reasons for this.

Something that may also impact on the way we view, or on the relative importance and focus we give to these dimensions stems from the initial findings of the Dispositions to Stay project. Here, the project team reported finding initial correlation with three of the dimensions to students' success in their first year at university – change orientation, critical curiosity and strategic awareness (Thompson, 2010). Therefore, it may be more effective to introduce individuals to the model in a phased process. Initially introducing them to these three dimensions and facilitating their reflection on these with support to help them define appropriate interventions if they identify this as desirable. Sometimes it is enough to provide the opportunity and framework for supported self-reflection that enables an individual to make more sense of how they approach their study and to make changes. The inclusion of change orientation in this list of three is not at odds with the earlier comment about this dimension nearly always being high in undergraduates, and raises questions about the motivations of any with a weak (or no) belief that HE study will change the way they think, and about the advice and guidance they received in reaching their decision to go to university.

The concern of ensuring a suitably experienced and expert individual provides the support for reflection is noted, and is indeed one of the concerns of the Bristol team as well as of mine. It is important therefore to be clear about the level of familiarity and expertise that is necessary to provide a particular level of support, and this is an area that would benefit from greater focus.

#### **4. Conclusion**

Although this research has yet to be concluded, this combination of approaches are providing an encouraging response from those lecturers who directly contact students within my own institution. It is important to stress that I have not made any judgements of the value of the ELLI approach in comparison to any other model. I have used this because it is the one with which I am most familiar and it consistently provides reported benefits to those who engage with it. The comparative complexity of a model that has seven, two pole dimensions does present the issue over the level of familiarisation required before one can fully engage in conversations about profiles. When exploring the use of the tool beyond research activity another issue has to do with the effort and expense required in order to provide staff with the appropriate training to act as mentors. Whilst I am sure this investment does bring benefits to individuals, both students and their teachers, I am not yet able to make a case that at an institutional level this investment will provide tangible returns. The benefits include an extensively trialled framework to promote thinking, self-reflection and discussion

about approaches to learning that are not fixed. This in turn supports transition into HE and from the Disposition to Stay study referred to earlier may provide an indication on how to succeed in at least the first year of university study.

Results so far suggest there may be value in a phased approach to introducing the ELLI model for undergraduate students both in terms of gradual familiarisation with the framework and in terms of the effort and cost required in providing support. This ramped approach would reduce the effort required by students when they already have much to do, and might lead to an increased proportion of students choosing to engage and potentially gain something of value to them in their study. A phased approach could either attempt to use a more simplified framework at the outset, or focus initially on say the three dimensions that have been highlighted as potentially strong indicators of early success: change orientation, critical curiosity and strategic awareness. At a later point, and this may be a different point for different students, there could be an option to explore the full depth of the model or the other dimensions. This in turn could lead to students having the option to take the full online inventory supported by an expert mentor. It is clear that conversation with others is an important aspect of this model.

Whilst buddying was not explored within this study, some of the activity proposals begin to show how this might potentially be taken forward: by pairing where the focus would be on one profile and then the other, or by dividing into groups of three where the third person is an observer. This could take place in face-to-face tutorials, in online forums or telephone and videoconferencing where the tutor could be on hand to provide support.

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